

AMENDMENTS TO THE DRAWINGS

Attached hereto are four (4) Replacement Drawing Sheets that comply with the provisions of 37 C.F.R. § 1.84. The Replacement Drawing Sheets incorporate the following drawing changes:

In Fig. 2, in box A1, "FUEL INJECTION AMOUNT Q_b" has been amended to -- FUEL INJECTION AMOUNT Q_f--;

In Fig. 2, in box A2, "(M_b = α X M_a X t)" has been amended to --(M_b = α X P_M X t)--;

In Fig. 6, in step S4, "M_a > M_{ec}" has been amended to --M_a > M_{a ϵ --;}

In Fig. 7, "B_m" shown next to "t₂" has been amended to --B_s--;

In Fig. 8, in box a2-1', "AIR RATIO FREQUENCY $\lambda\Delta t$ " has been amended to -- γ --;

In Fig. 8, box "A3" has been amended to --A3'--;

In Fig. 8, in box b1, "FILTER TEMPERATURE FREQUENCY $\beta_c\Delta t$ " has been amended to --FILTER TEMPERATURE FREQUENCY $\beta\Delta t$ --;

In Fig. 8, in box b3, "CALCULATING PARTICULATE BURNING COEFFICIENT $\alpha\Delta t$ (= f($\beta_c\Delta t$)" has been amended to --CALCULATING PARTICULATE BURNING VELOCITY COEFFICIENT $\alpha\Delta t$ = f($\beta\Delta t$)--;

In Fig. 8, box "b4" has been amended to --b4'--; and

In Fig. 8, in box A3' (as amended), "CALCULATING Pm_i USING" has
been amended to --CALCULATING PM_i USING--

It is respectfully requested that the Replacement Drawing Sheets be approved and made a
part of the record of the above-identified application.

REMARKS

Claims 1-8 are pending in the application. New claims 6-8 have been added.

Specification

Minor changes have been made to the specification to place it in better form for U.S. practice.

Drawings

Minor changes have been made to the drawings so that they are consistent with the descriptions in the specification.

The Examiner is respectfully requested to approve and enter these drawing changes.

Claim Rejections - 35 U.S.C. § 102

Claim 1 has been rejected under 35 U.S.C. § 102(e) as being anticipated by Mikami et al. (USP 6,655,133). This rejection is respectfully traversed.

The Examiner alleges, in the Office Action that Mikami states, in col. 16, lines 7-10:

In this case, the amount of particulates G that can be removed per unit time by oxidization on the particulate filter 70 without luminous flame is likewise increased as the temperature of the particulate filter 70 increases, as shown in FIG. 24 The amount of the particulates discharged from the combustion chamber per unit time is referred to as the amount M of discharged particulates.

Mikami also states, in col. 18, lines 35-42:

Further, according to the graph in FIG. 24, the difference (M-G) is regarded as the accumulation amount of the particulates wherein, M is the discharged particulates

amount assumed by the current engine operation condition and G is the possible oxidization amount considering the particulates temperature assumed by the current engine operation condition.

Therefore, Mikami merely discloses assuming the discharged particulates amount based on current engine operation condition, and does not disclose or suggest calculating “an amount of discharged particulates on the basis of an excess air ratio,” as recited in claim 1. Therefore, Mikami fails to disclose or suggest the “discharged particulate amount calculating unit,” as recited in claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Allowable Subject Matter

Applicants appreciate that Examiner’s indication that claims 2-5 are allowable over the prior art of record.

New Claims

Claims 6-8, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

A favorable determination by the Examiner and allowance of these claims is earnestly solicited.

Conclusion


Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: April 16, 2007

Respectfully submitted,

for By  (reg. # 40,417)
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Attachments: Four (4) Replacement Drawing Sheets - Fig. 2, 6, 7, 8.